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BEFORE THE ARIZONA CORPORATION COMMISSION

IN THE MATTER OF THE APPLICATION
OF CHAPARRAL CITY WATER
COMPANY, INC., AN ARIZONA
CORPORATION, FOR A
DETERMINATION OF THE CURRENT
FAIR VALUE OF ITS UTILITY PLANT
AND PROPERTY AND FOR INCREASES
IN ITS RATES AND CHARGES FOR
UTILITY SERVICE BASED THEREON.

DOCKET NO. W-02113A-04-0616

On remand from the Arizona Court
of Appeals, No. 1 CA-CC 05-0002

**CHAPARRAL CITY WATER COMPANY'S
APPLICATION FOR REHEARING**

Arizona Corporation Commission

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1 **I. BRIEF SUMMARY OF THE COMPANY'S APPLICATION**

2 Pursuant to A.R.S. § 40-253, Chaparral City Water Company ("Chaparral City" or
3 "the Company") hereby applies to the Arizona Corporation Commission ("the
4 Commission") for a rehearing of Decision No. 70441 (July 28, 2008) ("the Decision").¹
5 In the Decision, the Commission granted the Company a revenue increase of \$12,143 on
6 remand from the Court of Appeals, which is only 0.17 percent greater than the
7 \$7,310,464 revenue requirement authorized in Decision No. 68176 (Sept. 30, 2005).²
8 The increase in operating income – the additional return dollars that would pay capital
9 costs – is \$7,441, which is only 0.57 percent greater than the operating income authorized
10 in Decision No. 68176. Yet the Company's fair value rate base is \$3,309,533 greater
11 than its original cost rate base. The Decision effectively authorizes a return on that rate
12 base increment of only 0.22 percent.

13 In other words, despite the Arizona Court of Appeals' clear instruction to use the
14 fair value of the Company's property in setting rates,³ and despite the fact that the
15 Company's fair value rate base is \$3.3 million larger than its original cost rate base, the
16 Commission has set the Company's operating income at a level that is functionally
17 equivalent to the result produced by multiplying the weighted average cost of capital by
18 the original cost rate base. To achieve this result, the Commission arbitrarily reduced the
19 Company's cost of equity, which was determined to be 9.3 percent in Decision No.
20 68176 and affirmed by the Court on appeal, by 200 basis points to only 7.3 percent to
21

22 ¹ The Company incorporates by reference its Remand Closing Brief, filed on March 5, 2008, and
23 its Reply Brief, filed on March 21, 2008, and the evidence and arguments set forth therein, in
24 support of this application.

25 ² Decision at 41.

26 ³ *Chaparral City Water Co. v. Ariz. Corp. Comm'n*, No. 1 CA-CC 05-002 (Feb. 13, 2007) (Ex.
A-R13) at 11-13, ¶¶ 13-16.

1 account for "inflation."⁴ The Commission's manipulation of the rate of return in this
2 manner renders the use of fair value meaningless. Arizona courts have indicated that
3 adjusting the rate of return to ensure that the utility's earnings remain at the same level
4 when fair value is used would be illegal.⁵ It is illegal here as well.

5 The Commission should have applied the 7.6 percent rate of return that was used
6 to determine the Company's operating income in Decision No. 68176 to the correct rate
7 base – the fair value rate base. This approach complies with the decision and mandate of
8 the Court of Appeals because it uses the fair value of Chaparral City's plant and property
9 in a meaningful way.⁶ It is also supported by court decisions that have addressed the
10 appropriate rate of return in a fair value context.⁷ Applying the rate of return to the
11 correct rate base results in an increase in operating income of \$251,525, and an increase
12 in revenue of \$409,666, which is a percentage increase of 5.6 percent. The Company
13 would earn a 7.6 percent return on its entire rate base, rather than an effective return of
14 only 0.22 percent on the difference between original cost and fair value.⁸

15 The primary justification for rejecting the Company's recommendation is that
16 applying the weighted average cost of capital to the Company's fair value rate base
17 "would over-compensate the Company for inflation."⁹ That determination was erroneous

18 ⁴ Decision at 37.

19 ⁵ *Simms v. Round Valley Light & Power Co.*, 80 Ariz. 145, 149-51, 294 P.2d 378, 385 (1956);
20 *Ariz. Corp. Comm'n v. Citizens Utilities Co.*, 120 Ariz. 184, 190 n.5, 584 P.2d 1175, 1181 n.5
(App. 1978).

21 ⁶ *Chaparral City Water* at 11-13, ¶¶ 13-16.

22 ⁷ E.g., *State ex rel. Utilities Comm'n v. Duke Power Co.*, 206 S.E.2d 269 (N.C. 1974); *City of*
23 *Alton v. Commerce Comm'n*, 165 N.E.2d 513 (Ill. 1960).

24 ⁸ Staff recommended that the Company be allowed to earn a 0.00 percent return on the
25 difference between its original cost and fair value rate bases or, alternatively, a 1.25 percent
26 return. Ex. S-R5 at 5, 9. The Decision does not literally adopt, but approves of Staff's approach.
Decision at 34. Obviously, a return of 0.22 percent is effectively zero.

⁹ Decision at 41. See also *id.* at 30-32.

1 for several reasons, including the fact that half of the fair value rate base is based on the
2 original cost of the Company's plant which, by definition, contains no inflation, and the
3 Commission's erroneous belief that the Company's fair value rate base is simply
4 "inflated" by some general measure of inflation instead of being a conservative estimate
5 of current value.

6 The Decision also violates the prohibition against piecemeal ratemaking because it
7 considers the impact of inflation in isolation, ignoring inflation's impact on Chaparral
8 City's overall cost of service.¹⁰ In this case, the Commission relied on the "danger of
9 piecemeal regulation" in rejecting Chaparral City's request for purchased power and
10 water adjustment mechanisms.¹¹ Yet, in a complete reversal of that position, the
11 Commission considered only the impact of inflation on the Company's fair value rate
12 base and its cost of equity, and ignored the evidence presented by the Company regarding
13 the impact of inflation on the Company's earnings.¹² This was arbitrary and capricious.

14 In short, the Commission has ignored both the economic and legal underpinnings
15 of the fair value standard and relied on methods based on the prudent investment/original
16 cost approach, which, as the Court of Appeals explained, cannot be used.¹³ The
17 Commission's approach eliminates any legitimate increase in the Company's earnings,

19 ¹⁰ See *Residential Utility Consumer Office v. Ariz. Corp. Comm'n*, 199 Ariz. 588, 593, 20 P.3d
20 1169, 1174 (App. 2001); *Scates v. Ariz. Corp. Comm'n*, 118 Ariz. 531, 535, 578 P.2d 612, 161
(App. 1978).

21 ¹¹ Decision No. 68176 at 33.

22 ¹² Chaparral City's operating expenses, for example, are impacted by inflation to a greater extent
23 than either its rate base or the rate of return. See, e.g., Ex. A-R4 at 42-43. A schedule that
24 compares the impact of inflation on return dollars and operating expenses is attached at Tab A.
25 Based on the Decision's assumed inflation rate, operating expenses would increase 2.4 times
26 more quickly than the utility's operating income. This evidence was ignored by the
Commission.

¹³ *Chaparral City Water* at 13, ¶ 16.

1 even though the value of its property is at least \$3 million greater than its book cost. At
2 the same time, the Commission has ignored the impact of inflation on the rest of the
3 Company's cost of service and its ability to actually earn its authorized rate of return.
4 Consequently, the Decision should be vacated, and rates should be authorized that
5 actually utilize the fair value of Chaparral City's utility plant and property in accordance
6 with Arizona law.

7 **II. THE COURSE OF PROCEEDINGS BEFORE THE COMMISSION AND**
8 **THE COURT OF APPEALS**

9 **A. The Prior Proceedings Before the Commission**

10 Chaparral City is an Arizona corporation engaged in the provision of water utility
11 service. It serves approximately 12,000 customers within the Town of Fountain Hills and
12 a portion of the City of Scottsdale, in Maricopa County.¹⁴ On August 24, 2004, the
13 Company applied for a determination of the fair value of its utility plant and property
14 devoted to public service and increases in its rates and charges for service, based on a test
15 year ended December 31, 2003.¹⁵ The Company sought an increase in revenue of
16 \$1.77 million, or approximately 29 percent.¹⁶ The Company's proposed increase in
17 revenues would have produced an 8.21 percent rate of return on the Company's fair value
18 rate base.¹⁷ That rate of return, however, was based on the Commission's approval of
19 automatic adjustment mechanisms that would allow the Company to recover increases in
20 the cost of purchased water and purchased power. In case such mechanisms were not
21 approved, the Company requested a return of 8.6 percent, based on a higher cost of

22 _____
23 ¹⁴ See Decision No. 68176 at 3.

24 ¹⁵ See *id.* at 1-3.

25 ¹⁶ *Id.* at 3.

26 ¹⁷ See Ex. A-6, Schedule A-1.

1 equity resulting from additional investment risk.¹⁸

2 Following the submission of testimony by the Company, the Commission's Utility
3 Division ("Staff") and the Residential Utility Consumer Office ("RUCO"), a hearing was
4 conducted before a duly authorized Administrative Law Judge, commencing on May 31,
5 2005.¹⁹ Ultimately, the Commission issued Decision No. 68176 on September 30, 2005,
6 authorizing an increase in revenue of \$1,107,596 and establishing new rates and charges
7 for service, which became effective on October 1, 2005.²⁰

8 In setting rates in 2005, the Commission used what has become known as the
9 "backing-in method," under which the weighted cost of capital (also called the "WACC")
10 adopted by the Commission, 7.6 percent, was applied to the Company's original cost rate
11 base ("OCRB") to determine the Company's authorized operating income. That
12 operating income was then used to "translate" the 7.6 weighted cost of capital into a "fair
13 value rate of return" of 6.34 percent.²¹ In other words, operating income of \$1,294,338
14 was divided into the Company's fair value rate base ("FVRB") of \$20,340,298 to obtain
15 a percentage return of 6.36 percent. Consequently, the fair value determination required
16 by the Arizona Constitution was essentially meaningless.²²

17 The method approved in Decision No. 68176 was supported by the testimony of
18

19
20 ¹⁸ Decision No. 68176 at 16. *See also Chaparral City Water* at 26-27, 45-47 (discussing the
denial of the risk adjustment).

21 ¹⁹ Decision No. 68176 at 2.

22 ²⁰ *Id.* at 3, 28, 38-39, 41-44.

23 ²¹ *Id.* at 28.

24 ²² "For regulatory purposes, the rate of return is the amount of money earned by a public utility,
25 over and above operating costs, expressed as a percentage of the rate base." Charles F. Phillips,
26 Jr., *The Regulation of Public Utilities – Theory and Practice* 375-76 (Public Utilities Reports,
Inc. 1993).

1 Staff and RUCO.²³ They both argued in 2005 that the rate of return (in dollars) produced
2 by using fair value as the rate base should not exceed the rate of return that results when
3 the weighted cost of capital is applied to the OCRB.²⁴ Staff's cost of capital witness, Mr.
4 Ramirez, for example, testified that "[o]nly the cost of capital applied to the OCRB yields
5 the correct earnings," expressly advocating for the use of "backing in" method.²⁵ RUCO
6 did not bother to submit a proposed FVRB, and simply recommended that its OCRB be
7 treated as the Company's FVRB, avoiding the need to back into the rate of return.²⁶

8 Based on this testimony, the Commission stated in Decision No. 68176 that "no
9 legitimate basis [has been] presented for departing from" the "backing in" method.²⁷ It
10 also "found" as a matter of "fact" that the "rate of return methodology and resulting
11 revenue increases proposed by Chaparral City would produce an excessive return on
12 FVRB" because the operating income produced by applying the rate of return to the
13 FVRB would exceed the operating income produced by using the original cost of
14 Chaparral City's plant and property to set rates.²⁸

15 **B. The Court of Appeals' Decision**

16 The Company sought rehearing of Decision No. 68176, which was denied by
17 operation of law, and appealed the decision to the Arizona Court of Appeals pursuant to
18 A.R.S. § 40-254.01.²⁹ In the appeal, two issues were presented for review:

19 ²³ Decision No. 68176 at 26-27.

20 ²⁴ See, e.g., Ex. S-3 at 33; Ex. S-4 at 3-5.

21 ²⁵ Ex. S-4 at 5. As discussed below, RUCO's witness has made the same argument in the
22 remand proceeding. See, e.g., Ex. R-R2 at 5-6, 8.

23 ²⁶ Decision No. 68176 at 9.

24 ²⁷ *Id.* at 28.

25 ²⁸ *Id.* at 39.

26 ²⁹ See *Chaparral City Water* at 2-5, ¶¶ 2-5 (summarizing procedural history of case).

1. Does the “backing-in” method employed by the Commission in setting rates, under which Chaparral City’s authorized operating income and revenues are based on the historic cost of the Company’s property, violate Article XV, §§ 3 and 14 of the Arizona Constitution?
2. Was the Commission’s adoption of its Staff’s recommended equity return of 9.3 percent and resulting 7.6 percent return on rate base arbitrary and unreasonable?³⁰

With respect to the first issue, the Court held that “the Commission did not comply with requirements of Article 15, Section 14, of the Arizona Constitution when the Commission determined the operating income of Chaparral City using the original cost rate base instead of the fair value rate base.”³¹ The Court explained:

Under the Arizona Constitution, a public utility is entitled to a fair return on the fair value of its property devoted to public use. ... The Commission is required to find the fair value of the utility’s property at the time of the inquiry and to use that finding in setting just and reasonable rates. ... Here, the Commission determined Chaparral City’s operating income based on its OCRB and then mathematically calculated a corresponding rate of return had the income based on the FVRB. Under this method, Chaparral City’s operating income, and therefore its revenue requirements and rates, were not based on the fair value of its property, but on its OCRB, which does not comport with the Arizona Constitution.³²

The Court did not direct the Commission to use a specific rate of return methodology, but emphasized that the “Commission cannot determine rates based on the original cost, or OCRB, and then engage in a superfluous mathematical exercise to identify the equivalent FVRB rate of return.”³³ The court also explained that under the fair value standard, rates cannot be based on the investment made in the plant: “Rates cannot be based on

³⁰ Ex. A-R9 at 5.

³¹ *Chaparral City Water* at 28, ¶ 28.

³² *Id.* at 11-12, ¶ 14 (citations omitted).

³³ *Id.* at 13-14, ¶ 17.

1 investment, but must be based on the fair value of the utility's property."³⁴

2 With respect to the second issue on appeal, the Court ruled in favor of the
3 Commission, and affirmed the 9.3 percent equity return authorized in Decision No.
4 68176.³⁵ The Court held that "Chaparral City's objections to the methodologies used in
5 determining the cost of equity involve matters of judgment within the province of the
6 Commission" and that Chaparral City failed to make "a clear and convincing showing
7 that the Commission's decisions in these matters were unreasonable or unlawful."³⁶
8 Consequently, the cost of equity adopted by the Commission, which was based on Staff's
9 recommendations, was not at issue on remand to the Commission.

10 Following a three month period, during which the Commission considered but did
11 not seek review of the Court's decision by the Arizona Supreme Court, the Court issued
12 its mandate to the Commission on May 29, 2007, commanding the Commission "that
13 such proceedings be had in [this] cause as shall be required to comply with the decision
14 of this court." After an unsuccessful attempt by the Company to discuss settlement, the
15 Company filed schedules for the purpose of complying with the Court's decision and
16 mandate, requesting adjustments to its rates and charges for service and the approval of a
17 surcharge designed to recover the revenue deficiency together with carrying costs and
18 additional rate case expense.³⁷

19 Thereafter, procedural orders were issued by the Administrative Law Judge setting
20 dates for filing testimony and for the hearing in the remand proceeding. A hearing was
21

22 ³⁴ *Id.* at 13, ¶ 16 (citing *Simms*, 80 Ariz. at 151, 294 P.2d at 382 (1956), and *Ariz. Corp. Comm'n*
23 *v. Ariz. Water Co.*, 85 Ariz. 198, 203, 335 P.2d 412, 415 (1959)).

24 ³⁵ *Id.* at 27-28, ¶¶ 48-49.

25 ³⁶ *Id.* at 27-28, ¶ 48.

26 ³⁷ *See* Ex. A-R3.

1 conducted on January 28 and 29, 2008, following which the parties filed closing briefs
2 and their final schedules.³⁸ A recommended form of decision and order was issued by
3 the Administrative Law Judge on June 30, 2008, and was formally considered and
4 adopted by the Commission at an Open Meeting on July 17, 2008. The Decision was
5 ultimately issued nearly 18 months after the Court's decision was issued and well beyond
6 the nine-month deadline for the completion of an entire rate case. See A.R.S. § 40-
7 256(A).

8 The Decision authorized Chaparral City a revenue increase of only \$12,143, an
9 increase in operating income (earnings) of only \$7,441, even though Chaparral City's fair
10 value rate base is \$3.3 million more than its original cost rate base. The Commission
11 achieved this anomalous result by reducing Chaparral City's 9.3 percent cost of equity
12 (which was affirmed by the Court) to only 7.3 percent, producing a weighted average
13 cost of capital of only 6.40 percent. By contrast, the "backing-in" method found
14 unlawful by the Court produced a weighted cost of capital of 6.34 percent. In reality, the
15 Commission again chose to ignore the fair value standard, and adopted a methodology
16 ensuring that the Company's authorized level of operating income will be materially
17 equivalent to the operating costs produced when the rate of return is applied to its OCRB.

18 **III. OVERVIEW OF THE FAIR VALUE STANDARD AND THE PROPER**
19 **APPLICATION OF THE RATE OF RETURN TO A FAIR VALUE RATE**
20 **BASE**

21 **A. The Fair Value Standard**

22 In Arizona, utility rates must be established on the basis of the "fair value" of the
23 utility's property.³⁹ For example, in the seminal decision *Simms*, the Arizona Supreme

24 ³⁸ Decision at 4.

25 ³⁹ Ariz. Const. art. 15, § 14. See also *US West Communications, Inc. v. Ariz. Corp. Comm'n*,
26 201 Ariz. 242, 244-46, ¶¶ 13-19, 34 P.3d 351, 354-55 (2001) (summarizing Arizona court
decisions requiring the use of fair value).

1 Court stated:

2 It is clear, therefore, that under our constitution as interpreted
3 by this court, the Commission is required to find the fair
4 value of the company's property and use such finding as a
5 rate base for the purpose of calculating what are just and
6 reasonable rates. ... While our constitution does not establish
7 a formula for arriving at fair value, it does require such value
8 to be found and used as the base in fixing rates. *The
9 reasonableness and justness of the rates must be related to
10 this finding of fair value.*⁴⁰

11 Three years later, in *Arizona Water*, the Arizona Supreme Court followed *Simms* and
12 squarely rejected the prudent investment approach, stating:

13 This court has held that under our constitution the
14 Corporation Commission must find the fair value of the
15 properties devoted to the public use, and that in determining
16 the fair value the Commission cannot be guided by the
17 prudent investment theory nor can it use common equity as
18 the rate base standard. ... *The amount of capital invested is
19 immaterial. Under the law of fair value a utility is not
20 entitled to a fair return on its investment; it is entitled to a
21 fair return on the fair value of its properties devoted to the
22 public use, no more and no less.*⁴¹

23 *Simms* and *Arizona Water* provide the basic constitutional framework for rate-making in
24 Arizona, and have been consistently followed by Arizona courts. In 2001, the Arizona
25 Supreme Court reaffirmed that in a monopoly setting, fair value is the "exclusive rate
26 base" on which utility rates must be set.⁴²

27 The United States Supreme Court has explained that under the fair value standard,
28 rates are set "according to the actual present value of the assets employed in the public
29 service."⁴³ "Fair value means the value of properties at the time of inquiry," not simply

30 ⁴⁰ *Simms*, 80 Ariz. at 151, 294 P.2d at 382 (emphasis added).

31 ⁴¹ *Ariz. Water*, 85 Ariz. at 203, 335 P.2d at 415 (emphasis added).

32 ⁴² *US West*, 201 Ariz. at 246, ¶¶ 18-19, 34 P.3d at 355.

33 ⁴³ *Duquesne Light Co. v. Barasch*, 488 U.S. 299, 308 (1989).

1 their historic cost or the amount originally invested to build them.⁴⁴ Consequently, a
2 utility benefits from increases in the value of the property it devotes to public service, but
3 also bears the risk of obsolescence and other loss of property value:

4 In theory the *Smyth v. Ames* fair value standard mimics the
5 operation of the competitive market. To the extent the
6 utilities' investments in plants are good ones (because their
7 benefits exceed their costs) they are rewarded with an
8 opportunity to earn an "above-cost" return, that is, a fair
9 return on the current "market value" of the plant. To the
10 extent utilities' investments turn out to be bad ones (such as
11 plants that are canceled and so never used and useful to the
12 public), the utilities suffer because the investments have no
13 fair value and so justify no return.⁴⁵

14 By allowing utility investors to be rewarded when the value of their plant increases, but
15 requiring them to bear the burden when its value decreases, the "fair value standard
16 mimics the operation of the competitive market."⁴⁶ Their investment is analogous to an
17 investment in the stock of unregulated firms or other assets, which increase or decrease in
18 value depending on various economic factors, as opposed to an investment in bond or
19

20 ⁴⁴ *Simms*, 80 Ariz. at 151, 294 P.2d at 382. See also *Arizona Pub. Serv. Co. v. Ariz. Corp.*
21 *Comm'n*, 113 Ariz. 368, 370, 555 P.2d 326, 328 (Ariz. 1976) ("The company is entitled to a
22 reasonable return upon the fair value of its properties at the time the rate is fixed.");
23 *Consolidated Water Utilities, Ltd. v. Ariz. Corp. Comm'n*, 178 Ariz. 478, 482 n. 6, 875 P.2d 137,
24 141 n. 6 (App. 1993) ("The fair value rate base is the fair value of the company's properties
25 within the state at the time the rate is fixed.").

26 ⁴⁵ *Duquesne Light*, 488 U.S. at 308-09 (emphasis added) (citing *Smyth v. Ames*, 169 U.S. 466,
547 (1898)). See also *McCardle v. Indianapolis Water Co.*, 272 U.S. 400, 4010-11 (1926). ("It is
well established that values of utility properties fluctuate, and that owners must bear the decline
and are entitled to the increase."); *Bluefield Waterworks & Improvement Co. v. Pub. Serv.*
Comm'n, 262 U.S. 679, 690 (1923) ("If the property, which legally enters into the consideration
of the question of rates, has increased in value since it was acquired, the company is entitled to
the benefit of such increase."); *City of Tucson v. Citizens Utilities Water Co.*, 17 Ariz. App. 477,
480, 498 P.2d 551, 554 (1972) ("The [Arizona Supreme] Court reiterated [in *Simms*] that fair
value meant 'value of properties at the time of inquiry' ... which figure will necessarily reflect
the current cost of construction.").

⁴⁶ *Duquesne Light*, 488 U.S. at 308.

1 other debt instrument, which is fixed.⁴⁷

2 The fair value standard "gives utilities strong incentive to manage their affairs
3 well and to provide efficient service to the public."⁴⁸ Nevertheless, it has been replaced
4 in most jurisdictions by what is called the "prudent investment" or "historical cost"
5 approach, under which "the utility is compensated for all prudent investments at their
6 actual cost when made (their 'historical' cost)."⁴⁹ Put simply, under the prudent
7 investment standard, a utility's rates are based on the historic investment in its plant, as
8 recorded on the utility's books, while under the fair value standard, a utility's rates are
9 based on the current value of its property, not the original cost to build it. As explained
10 by the Illinois Supreme Court,

11 [T]he concept of fair value holds that it is the value of the
12 utility's property devoted to public service upon which the
13 reasonable rate must be returned. It is a *Value concept* and
14 not a *Cost concept*. Stating it briefly, a cost rate base reflects
the amount of invested capital, whereas a value rate base
reflects the value of the assets which the utility has devoted to
serving the public.⁵⁰

15 Because the prudent investment approach relies on the recorded, book cost of the utility's
16 plant and other accounting information, rather than the current value of the plant, the use
17 of this method simplifies the rate-setting process.⁵¹

18
19 ⁴⁷ See *Railroad Comm'n v. Houston Natural Gas Corp.*, 289 S.W.2d 559, 565 (Tex. 1956)
20 (discussing *San Diego Land & Town Co. v. City of National City*, 74 F. 79 (C.C.Cal. 1896),
affirmed 174 U.S. 739 (1899)); Robert A. Webb, "Utility Rate Base Valuation in an Inflationary
Economy," 28 *Baylor L. Rev.* 823, 825 (1976).

21 ⁴⁸ *Duquesne Light*, 488 U.S. at 309.

22 ⁴⁹ *Ibid.*

23 ⁵⁰ *Union Elec. Co. v. Ill. Comm. Comm'n*, 396 N.E.2d 510, 516 (Ill. 1979) (emphasis added).

24 ⁵¹ The "most serious problem" associated with using the fair value method in setting rates was
25 "the laborious and baffling task of finding the present value of the utility." *Duquesne Light*, 488
26 U.S. at 309 n.5 (quoting *Missouri ex rel. Southwestern Bell Tel. Co. v. Public Serv. Comm'n*, 262
U.S. 276, 292-94 (1923) (Brandeis, J. dissenting)).

1 In 1944, the Supreme Court ceased its practice of scrutinizing the rate-setting
2 methodologies of public utility commissions under the fair value standard. The Court
3 adopted in *Hope Natural Gas* what has become known as the “end result” test, declaring,
4 in interpreting the federal Natural Gas Act:

5 Under the statutory standard of “just and reasonable” it is the
6 result reached and not the method employed which is
7 controlling. ... It is not the theory but the impact of the rate
8 order which counts. If the total effect of the rate order cannot
be said to be unjust and unreasonable, judicial inquiry is at an
end. The fact that the method employed to reach that result
may contain infirmities is not then important.⁵²

9 Thus, the commission was not required to set rates based on the fair value of the pipeline
10 company’s property to satisfy constitutional requirements.

11 Arizona courts have made it clear, however, that the adoption of the “end result”
12 test in *Hope Natural Gas* did not alter the express mandate of Article 15, Section 14 of
13 the Arizona Constitution. Indeed, in *Simms*, the first Arizona decision to address *Hope*
14 *Natural Gas*, the Arizona Supreme court squarely rejected the “end result” test, holding
15 that the Arizona Constitution requires the fair value of a utility’s property to be found and
16 used as the rate base.⁵³ In short, regardless of what is currently done in other
17 jurisdictions, the fair value standard applies to ratemaking in this State.

18 **B. How the Rate of Return Is Applied to a Fair Value Rate Base**

19 The Arizona Supreme Court rhetorically asked in *US West*, what is to be done
20 with the finding of fair value?⁵⁴ The court answered that question by explaining that
21 “fair value has been the factor by which a reasonable rate of return was multiplied to

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23 ⁵² *Federal Power Comm’n v. Hope Natural Gas*, 320 U.S. 591, 602 (1944). See also *Duquesne*,
488 U.S. at 310 (discussing *Hope*).

24 ⁵³ *Simms*, 80 Ariz. at 150-51, 294 P.2d at 381-82. See also *US West*, 201 Ariz. at 245-46 & n.2,
25 ¶¶ 10-19, 34 P.3d at 354-55 & n.2; *Ariz. Water*, 85 Ariz. at 203, 335 P.2d at 415.

26 ⁵⁴ *US West*, 201 Ariz. at 245, ¶ 13, 34 P.3d at 354.

1 yield, with the addition of reasonable operating expenses, the total revenue that a
2 corporation could earn. ... That revenue figure was then used to set rates.”⁵⁵ Nothing in
3 that opinion, the Court’s prior decision in this case, or in any other Arizona decision
4 indicates, however, that it is permissible to manipulate the rate of return to produce a
5 result that is equivalent to using original cost to set rates, or that the reasonableness of
6 rates should be determined by reference to the end result produced under the prudent
7 investment/original cost method. This would unlawfully conflate fair value with prudent
8 investment, undermining the purpose of using the fair value of a utility’s property as its
9 rate base. Indeed, the Court strongly cautioned that “the Commission appears to be
10 advocating the setting of rates based on investment made in plant. However, rates cannot
11 be based on investment, but must be based on the fair value of the utility’s property.”⁵⁶

12 1. **Two Helpful Decisions That the Commission Ignored**

13 The Company provided two decisions, *Duke Power* (which was also cited by
14 Staff), issued by the North Carolina Supreme Court, and the *City of Alton*, issued by the
15 Illinois Supreme Court, that specifically discuss the use of traditional cost of capital
16 methodology to determine the appropriate rate of return in a fair value context. Although
17 these cases demonstrate how a WACC-derived rate of return should be applied to a fair
18 value rate base, the Commission simply dismissed them as inapplicable.

19 a. **City of Alton**

20 In *City of Alton*, the state commission authorized a return of 5.6 percent on a water
21 utility’s FVRB, resulting in an increase in revenue of 47.5 percent.⁵⁷ The intervenors

22 ⁵⁵ *Id.* (following *Scates v. Ariz. Corp. Comm’n*, 118 Ariz. 531, 533-34, 578 P.2d 612, 614-15
23 (App. 1978)).

24 ⁵⁶ *Chaparral City Water*, at 13, ¶ 16 (citing *Ariz. Water*, 85 Ariz. at 203, 335 P.2d at 415, and
25 *Simms*, 80 Ariz. at 151, 294 P.2d at 382).

26 ⁵⁷ 165 N.E.2d at 515-16.

1 appealed the decision to the circuit court, which disallowed the return on the FVRB on
2 the basis that it produced an excessive return to the common stockholders.⁵⁸ The circuit
3 court calculated the net income available for distribution to the stockholder, and divided
4 that amount by the book value of the utility's common equity, which resulted in an equity
5 return of 17 percent.⁵⁹ The Illinois Supreme Court reversed and upheld the return on the
6 FVRB, explaining that the circuit court had erroneously assumed that the "return on the
7 original common stock investment was the relevant figure in determining the
8 reasonableness of an overall rate of return."⁶⁰ The court stated:

9 It is well established in Illinois that the utility is entitled to a
10 reasonable overall return on the fair value of its property, not
11 the original cost. This provides a flexible rate-making
12 standard which is equally applicable in periods of rising and
13 falling price levels. ... It would be inconsistent to judge the
14 overall return on the basis of fair value but judge the return
15 accruing to common shareholders on the basis of a par value
16 which is essentially original cost. *The significant figure is*
17 *the rate of return on common stock valued at fair value.*⁶¹

18 The court also explained that there are several ways to determine a reasonable rate
19 of return on the utility's common equity valued at fair value. For example, the "fair
20 value attributable to the common stock might be determined by subtracting the par [i.e.,
21 book] value of debt and preferred stock, to reflect the fact that all increments in value
22 belong to the equity, or by dividing fair value in the same percentages as book value."⁶²
23 Both approaches provide a rational framework for developing a fair rate of return by
24 using the cost of capital in a fair value context.

25 ⁵⁸ *Id.* at 516, 519.

26 ⁵⁹ *Id.* at 519.

⁶⁰ *Ibid.*

⁶¹ *Ibid.* (emphasis supplied). See also *Union Electric*, 396 N.E.2d at 516 (quoting and following
 City of Alton and rejecting the *Hope* "end result" test advocated by the commission).

⁶² 165 N.E.2d at 520.

1 The first approach recognizes that any increase (or decrease) in property value
2 inures solely to the benefit (or detriment) of the equity holders. Thus, the difference
3 between the OCRB and the FVRB (which Staff called the "Fair Value Increment" in its
4 testimony⁶³) would be added to the equity balance, and the adjusted equity balance would
5 then be used in the weighted cost of capital calculation to determine the cost of
6 capital/rate of return. The second approach assumes that the Fair Value Increment is
7 funded by all of the components of the capital structure, which reduces the potential
8 benefit to the equity holders when the Fair Value Increment is positive, but also reduces
9 the adverse impact on the equity holders when the Fair Value Increment is negative.

10 **b. *Duke Power***

11 In *Duke Power*, the North Carolina Supreme Court addressed the appropriate rate
12 of return in a fair value context. When this case was decided, North Carolina's statute
13 governing rate-setting required that "the Commission shall fix rates which will enable a
14 well managed utility to earn a 'fair rate of return' on the 'fair value' of its properties
15 'used and useful' in rendering its service." Thus, North Carolina's rate-setting
16 requirements were virtually identical to Arizona's.⁶⁴

17

⁶³ See, e.g., Ex. S-R5 at 5-7.

18 ⁶⁴ 206 S.E.2d at 276. North Carolina General Statute § 62-133(b), in its entirety, provides as
19 follows:

20 "(b) In fixing such rates, the Commission shall:

21 "(1) Ascertain the fair value of the public utility's property used and useful in providing the
22 service rendered to the public within this State, considering the reasonable original cost of the
23 property less that portion of the cost which has been consumed by previous use recovered by
24 depreciation expense, the replacement cost of the property, and any other factors relevant to the
present fair value of the property. Replacement cost may be determined by trending such
reasonable depreciated cost to current cost levels, or by any other reasonable method.

25 "(2) Estimate such public utility's revenue under the present and proposed rates.

26 "(3) Ascertain such public utility's reasonable operating expenses, including actual investment
currently consume through reasonable actual depreciation.

1 In setting rates for Duke Power, however, the state commission used an approach
2 similar to the "backing-in" method used to set Chaparral City's rates in Decision No.
3 68176. The commission determined that Duke Power's cost of equity was 11 percent.
4 That equity cost was used, along with the annual interest on the utility's debt and
5 dividends on its preferred stock, to compute the amount that would be a "fair" dollar
6 return to the utility on the capital historically invested in its properties, i.e., the utility's
7 OCRB. That dollar return was then used to compute an overall return of 7.05 percent on
8 the fair value of the utility's properties.⁶⁵ The court held that this approach violated the
9 fair value standard because it produced the same total dollar return as if "the fair value of
10 the properties had been exactly the same as Duke's actual net investment in the
11 properties."⁶⁶

12 The court also reaffirmed that the Fair Value Increment must be recognized as a
13 component of the utility's equity in determining the rate of return:

14 The "fair value" increment (fair value of the plant less
15 original cost, depreciated) found by the Commission was
16 approximately \$95,500,000. For rate of return purposes, this
increment must be added to the equity component of Duke's
actual investment in its electric plant. *Duke is entitled, under*

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19 "(4) Fix such rate of return on the fair value of the property as will enable the public utility by
20 sound management to produce a fair profit for its stockholders, considering changing economic
21 conditions and other factors, as they then exist, to maintain its facilities and services in
accordance with the reasonable requirements of its customers in the territory covered by its
franchise, and to compete in the market for capital funds on terms which are reasonable and
which are fair to its customers and to its existing investors.

22 "(5) Fix such rates to be charged by the public utility as will earn in addition to reasonable
23 operating expenses ascertained pursuant to paragraph (3) of this subsection the rate of return
24 fixed pursuant to paragraph (4) on the fair value of the public utility's property ascertained
pursuant to paragraph (1)."

25 ⁶⁵ *Id.* at 281.

26 ⁶⁶ *Ibid.*

1 G.S. § 62-133(b), to earn the same rate of return on this
2 increment as it is entitled to earn on the retained earnings
3 (surplus) which it has reinvested in its plant. The wisdom of
4 the statute is not for us or for the Commission. The
5 Legislature has so decreed and its mandate must be observed
6 by the Commission.⁶⁷

7 *Duke Power* is consistent with the view of the Illinois Supreme Court in *City of*
8 *Alton* that the difference between OCRB and FVRB – the Fair Value Increment – should
9 be recognized in determining the rate of return by adjusting the utility's equity balance to
10 include the Fair Value Increment and then using the adjusted equity balance to determine
11 the cost of capital. That approach complies with the fair value standard by allowing the
12 utility and its equity investors to benefit from increases in the value of the property
13 devoted to public service, but also requiring the utility and its equity investors to bear the
14 risk of obsolescence and other loss of property value, which would result in a downward
15 adjustment to the utility's equity balance.

16 **c. The Commission Rejected *City of Alton* and *Duke Power***
17 **on Irrelevant and Improper Grounds**

18 The Commission dismissed *City of Alton* on the basis that the methods described
19 “seem to be ‘after-the-fact,’ as opposed to methods to use”⁶⁸ That characterization is
20 erroneous. Courts normally review agency decisions “after-the-fact” and provide
21 guidance for future decision-making, as the Court did in this case. In addition, the *City of*
22 *Alton* court stated that “[s]everal methods of computing [the rate of return on the FVRB]
23 might be used” and, after describing those methods, concluded that regardless of the
24 method chosen, “in this case the return on fair value attributable to common stock falls

25 ⁶⁷ *Ibid.* (emphasis added). See, e.g., *Utilities Comm'n v. Gen. Tele. Co.*, 189 S.E.2d 705, 720
26 (N.C. 1972) (discussing risk resulting from a utility's debt ratio).

⁶⁸ Decision at 25-26.

1 within the range of the testimony,” i.e., it was supported by the record.⁶⁹ Consequently,
2 the discussion ignored by the Commission was relevant to the court’s holding.

3 The Commission rejected *Duke Power* because “[t]he Court clearly indicated that,
4 under the North Carolina statute, the North Carolina Commission had to apply the cost of
5 equity to the fair value increment.”⁷⁰ That statement is wrong. In fact, as previously
6 explained, North Carolina General Statute § 62-133(b) simply provided that “the
7 Commission shall fix rates which will enable a well managed utility to earn a ‘fair rate of
8 return’ on the ‘fair value’ of its properties ‘used and useful’ in rendering its service.”⁷¹
9 Thus, North Carolina law was analogous to Arizona law; there was no statute mandating
10 that the commission apply the cost of equity to the fair value increment, as the
11 Commission erroneously stated. Instead, the requirement that the Fair Value Increment
12 be added to the utility’s equity balance was the result of the North Carolina Supreme
13 Court’s legal interpretation of the statute’s requirement that rate be based on fair value, as
14 *Duke Power* plainly states.⁷²

15 The Commission also provided a lengthy quotation from *Duke Power*, with no
16 explanation or discussion of that quotation’s relevance to this case.⁷³ The Commission
17 seemed to suggest that the *Duke Power* court held that the inclusion of the Fair Value
18 Increment in the utility’s capital structure should automatically reduce the overall rate of
19 return. Actually, the court stated that the addition of the Fair Value Increment to the
20 utility’s equity balance might (not must) result in a lower cost of capital based on two

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22 ⁶⁹ 165 N.E.2d at 520.

23 ⁷⁰ Decision at 25.

24 ⁷¹ 206 S.E.2d at 276.

25 ⁷² *Id.* at 280 (quoting *General Tele.*, 189 S.E.2d at 719-20).

26 ⁷³ Decision at 24-25 (quoting *Duke Power*, 206 S.E. at 282).

1 considerations, (1) reduced financial risk and (2) reduced firm-specific risks.⁷⁴ Neither of
2 these considerations is applicable in this case, which is presumably why the Commission
3 failed to discuss them in the Decision.

4 First, the *Duke Power* court stated that including the Fair Value Increment in the
5 utility's equity balance "enlarges the equity component in relation to the debt component
6 so that the risk of the investor in common stock is reduced."⁷⁵ In other words, the
7 Commission should consider whether the financial risk resulting from the utility's capital
8 structure has changed. Previously, the Commission explained to the Court of Appeals
9 that "[c]apital structure affects financial risk. A greater percentage of debt in a capital
10 structure results in higher financial risk and a higher cost of equity. Increasing debt
11 increases leverage and thus risk."⁷⁶ To account for financial risk associated with leverage
12 (debt), the Commission uses a direct financial risk adjustment, and either increases or
13 decreases the cost of capital based on the percentages of debt and equity in the utility's
14 capital structure.⁷⁷

15 If the *Duke Power* approach had been used in this case, the percentage of equity in
16 Chaparral City's capital structure would increase from 58.8 percent to 65.5 percent, while
17 the percentage of debt would decrease from 41.2 percent to 34.5 percent. However,
18 Chaparral City proposed the conservative approach, i.e., that the Commission simply
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20 ⁷⁴ *Duke Power*, 206 S.E. at 282.

21 ⁷⁵ *Ibid.*

22 ⁷⁶ Ex. S-R8 at 27. See also *General Tele.*, 189 S.E.2d at 720. Note that it is ratio of debt to total
23 capital that matters, not the dollar amounts of debt and equity. The WACC methodology relies
on the percentages of debt and equity in the utility's capital structure, as discussed below.

24 ⁷⁷ See, e.g., *Gold Canyon Sewer Co.*, Decision No. 69664 (June 28, 2007) 27-29 (downward
25 adjustment of 100 basis points to cost of equity where capital structure consisted of 100 percent
26 equity); *Arizona-American Water Co.*, Decision No. 69440 (May 1, 2007) 18-20 (upward
adjustment of 100 basis point to cost of equity based on highly leveraged capital structure).

1 apply the weighted cost of capital to its FVRB. This results in no change to the
2 percentages of debt and equity in the Company's capital structure, as shown below:

3 Company Approach

4 <u>Item</u>	<u>Amount</u>	<u>Capitalization</u> <u>Percent</u>	<u>Cost (%)</u>	<u>OCRB %</u>	<u>Cost in Dollars</u>
5 Debt	\$8,380,203	41.2%	5.10%	2.10%	\$427,390
6 Equity	<u>\$11,960,095</u>	<u>58.8%</u>	9.30%	<u>5.47%</u>	<u>\$1,112,289</u>
7 Total	\$20,340,298	100.00%		7.57%	<u>\$1,539,679</u>

8 Under this approach, the Fair Value Increment is supported by the utility's total capital,
9 including its outstanding debt, and the percentage of equity in Chaparral City's capital
10 structure remains 58.8 percent. The Commission previously told the Court of Appeals
11 that "on average, the capital structure of the average sample water utility is pretty similar
12 to Chaparral City ... [s]o it is not unreasonable to assume they have the same financial
13 risk."⁷⁸ Therefore, no adjustment for financial risk is appropriate, and the first
14 consideration noted by the *Duke Power* court does not apply in this case.

15 Second, the *Duke Power* court stated that the use of fair value may result in future
16 increases in the utility's rate base, which would provide equity investors "an assurance of
17 growth of dollar earnings per share, over and above the growth incident to the
18 reinvestment in the business of the company's actual retained earnings."⁷⁹ This
19 consideration, however, is irrelevant because, other than financial risk, regulatory risk
20 and other types of unique or firm-specific risks are not considered by the Commission in
21 estimating the cost of equity.⁸⁰

22 ⁷⁸ Ex. S-R8 at 27 (quoting Tr. 366).

23 ⁷⁹ *Duke Power*, 206 S.E.2d at 282.

24 ⁸⁰ See, e.g., *Arizona Water Co.*, Decision No. 68032 (Nov. 14, 2005) 38 ("Unique risk does not
25 affect the cost of equity, because firm-specific risk can be eliminated through shareholder
26 diversification.").

1 This case provides a prime example of the Commission's policy of excluding
2 unique risk in determining the cost of equity. In the initial phase of this case, Chaparral
3 City's witnesses identified a number of specific aspects of Arizona's rate-setting system
4 that affect cash flows and make it more difficult for Chaparral City to actually earn its
5 authorized rate of return, increasing risk. These included:

- 6 • Use of an historic test period with limited out-of-period adjustments,
7 which delays recovery of costs associated with new utility plant.
- 8 • The exclusion of construction work in progress in rate base.
- 9 • Lack of automatic adjustment mechanisms and balancing accounts
10 that allow Chaparral City to promptly recover increases in
11 significant operating expenses beyond the utility's control.
- 12 • The imposition of inverted-tier declining block rate structures on
13 water utilities to conserve water, without any adjustment to the
14 utilities' revenues to account for changes caused by reduced
15 consumption.⁸¹

16 None of the water utilities in Staff's sample group do business in Arizona (other than
17 American States Water Company, which owns Chaparral City), and they are not exposed
18 to the rate-setting policies and methods employed in this jurisdiction.⁸² These policies
19 reduce cash flow and increase investment risk.⁸³

20 Staff opposed any adjustment to the cost of equity based on firm-specific risk
21 because regulatory and other types of unique risk are "related to the risk of an individual
22 project or firm; therefore [such risk] can be eliminated through diversification. Investors
23 can eliminate unique risk by holding a diversified portfolio. Unique risk is not measured

24 ⁸¹ See Ex. A-7. at 13-20; Ex. A-8 at 3-4, 25; Ex. A-11 at 18-19; Ex. A-12 at 4-8.

25 ⁸² See Ex. A-15 (describing the sample group of publicly traded water utilities used to estimate
26 the cost of equity).

⁸³ Ex. A-8 at 25.

1 by beta, nor does it affect the cost of equity because these firm-specific risks can be
2 eliminated through shareholder diversification.”⁸⁴ The Commission adopted Staff’s
3 recommendations.⁸⁵

4 On appeal, the Company argued that the Commission erred in failing to adjust the
5 cost of equity to account for the risk related to Arizona’s particular rate-setting system.⁸⁶
6 The Commission argued in response that unique risk is irrelevant to the cost of equity.⁸⁷
7 According to the Commission, “unique risks that investors can eliminate through
8 diversification are not relevant for the purposes of computing a firm’s cost of capital.”⁸⁸
9 In short, the Commission’s position on appeal was that although there may be wide
10 variations in the rate-setting methods used in each jurisdiction, ultimately, each water
11 utility’s investment risk is the same as the industry as whole. The Court accepted the
12 Commission’s argument and ruled that unique risk is irrelevant to the cost of equity.⁸⁹

13 Thus, it appears that the Commission is acting arbitrarily by taking one position
14 (that regulatory risk is irrelevant to the cost of equity) in the initial phase of this case, and
15 then, on remand, taking the opposite position in order to justify lowering the Company’s
16 equity return. This arbitrary approach to rate-making is itself unlawful:

17 The risks a utility faces are in large part defined by the rate
18 methodology because utilities are virtually always public

19 ⁸⁴ Ex. S-3 at 10 (emphasis added). *See also id.* at 35-39; Ex. A-R6 at 24 (summarizing Staff’s
20 position on regulatory and firm-specific risk).

21 ⁸⁵ Decision No. 68176 at 25-26.

22 ⁸⁶ Ex. A-R9 at 51-57.

23 ⁸⁷ Ex. S-R8 at 23-27.

24 ⁸⁸ *Id.* at 23.

25 ⁸⁹ *Chaparral City Water* at 25-27, ¶¶ 43-47. The Court specifically noted the testimony of Mr.
26 Ramirez, Staff’s cost of capital witness, “that beta represents systematic risk of the industry,
which is the only risk relevant to the cost of equity determination.” *Id.* at 27.

1 monopolies dealing in an essential service, and so relatively
2 immune to the usual market risks. Consequently, a State's
3 decision to arbitrarily switch back and forth between
4 methodologies in a way which required investors to bear the
5 risk of bad investments at some times while denying them the
6 benefit of good investments⁹⁰ at others would raise serious
7 constitutional questions.

8 In short, *City of Alton* and *Duke Power* provide two authoritative examples
9 illustrating how the cost of capital methodology should be used to derive a rate of return
10 that satisfies the fair value standard. The approach advocated by Chaparral City is the
11 more conservative approach described in *City of Alton*, i.e., the 7.6 cost of capital should
12 be applied to the fair value rate base without increasing the equity balance, which
13 produces a lower revenue requirement than the *Duke Power* approach, in which the
14 utility's equity balance is adjusted. The Commission, unfortunately, dismissed both
15 decisions, and instead lowered Chaparral City's rate of return to 6.34 percent by reducing
16 the Company's cost of equity from 9.3 percent to only 7.3 percent. As shown below, the
17 justification for doing so is both conceptually and legally flawed.

18 **IV. SUMMARY OF THE PARTIES' RECOMMENDATIONS AND THE** 19 **COMMISSION'S DECISION**

20 The parties to the remand proceeding presented different recommendations
21 concerning the appropriate rate of return to be used in connection with a FVRB. Only
22 the Company's recommendation, however, actually uses the fair value of the Company's
23 utility plant and property in a meaningful way in setting rates and, therefore, is consistent
24 with the Court of Appeals' decision and mandate. Chaparral City applies the percentage
25 rate of return used in Decision No. 68176, based on the weighted cost of capital, to the
26 correct rate base. The application of the WACC-derived cost of capital to the FVRB is
also consistent with the decisions of other jurisdictions, including the *City of Alton* and

⁹⁰ *Duquesne Light*, 488 U.S. at 314-15 (emphasis added).

1 *Duke Power* decisions discussed above, which recognize that the difference between
2 OCRB and FVRB is being financed with investor-supplied capital.

3 Staff and RUCO, in contrast, proposed methodologies that are rooted in original
4 cost concepts, i.e., historic investment in plant, notwithstanding the Court of Appeals'
5 decision to the contrary. Both methods were approved by the Commission.

6 **A. Staff's Method Is the Prudent Investment Method**

7 Staff recommended that the Commission compute a "fair value rate of return"
8 (called the "FVROR"), which is then applied to Chaparral City's FVRB. As in *Duke*
9 *Power*, Staff's two alternatives involved the restatement of Chaparral City's capital
10 structure into three components, long-term debt, common equity and the Fair Value
11 Increment, with the latter being equal to the difference between Chaparral City's FVRB
12 and its OCRB. In *Duke Power*, the court explained that the utility is entitled under the
13 fair value standard "to earn the same rate of return on this increment as it is entitled to
14 earn on the retained earnings (surplus) which it has reinvested in its plant."⁹¹ Staff, in
15 contrast, applied a rate of return of **0.00 percent** in its preferred alternative (called
16 Alternative 1) to the Fair Value Increment.⁹²

17 The following is a comparison of the rates of return and return dollars produced by
18 Staff's preferred alternative and a prudent investment/original cost approach, under
19 which the weighted cost of capital is applied to Chaparral City's OCRB to derive the rate
20 of return:

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⁹¹ *Duke Power*, 206 S.E.2d at 281.

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25 ⁹² Ex. S-R5 at 5 (Alternative 1). In Staff's other alternative, the Company would be authorized a
26 return of only 1.25 percent on the Fair Value Increment, while being allowed to earn a return of
7.6 percent on the remainder of the Company's invested capital. *See id.* at 9 (Alternative 2).

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OCRB Approach

<u>Item</u>	<u>Amount</u>	<u>Capitalization Percent</u>	<u>Cost (%)</u>	<u>FV (%)</u>	<u>Cost in Dollars</u>
Debt	\$7,016,675	41.2%	5.10%	2.10%	\$357,850
Equity	<u>\$10,014,090</u>	<u>58.8%</u>	9.30%	<u>5.47%</u>	<u>\$931,310</u>
Total	\$17,030,765	100.00%		7.57%	<u>\$1,289,161</u>

Staff Alternative 1

<u>Item</u>	<u>Amount</u>	<u>Capitalization Percent</u>	<u>Cost (%)</u>	<u>FV (%)</u>	<u>Cost in Dollars</u>
Debt	\$7,016,675	34.50%	5.10%	1.76%	\$357,850
Equity	\$10,014,090	49.23%	9.30%	4.58%	\$931,310
FVRBI	<u>\$3,309,533</u>	<u>16.27%</u>	0.00%	<u>0.00%</u>	<u>\$0</u>
Total	\$20,340,299	100.00%		6.34%	<u>\$1,289,161</u>

Staff conceded that Alternative 1 produces the same result as the “backing-in” method; any difference between the two methods is solely the result of rounding off some numbers before computing the operating income.⁹³ Thus, Staff’s Alternative 1 was simply another back-door method of determining operating income that is equivalent to operating income produced by means of the method declared unlawful by the Court.

Staff’s witnesses attempted to justify this transparent methodology on the basis of “financial theory.” This “financial theory,” however, is the prudent investment method. For example, Staff’s witness explained that “[t]he fundamental, underlying premise on which original cost rate base regulation is based is the recognition that a utility should be granted an opportunity to earn its prudently-incurred costs, including capital costs.”⁹⁴ He also explained that “[s]ince the increment between fair value rate base and original cost rate base is not financed with investor-supplied funds, it is logical and appropriate, from a

⁹³ Ex. A-R14; Ex. A-R9 at 5-7 and TMZ RJ-1.

⁹⁴ Ex. S-R6 at 7.

1 financial standpoint, to assume that this increment has no financing cost.”⁹⁵ During the
2 hearing, he testified:

3 The difference between original cost rate base and fair value
4 rate base is not supported by investment because it is not
5 dollars that are provided by investors, the \$17 million versus
6 the \$20 million. ...

7 It is not appropriate for the company’s investors to [earn a
8 return on the FVRB increment] because investors did not put
9 up the money to support that differential. Investors are
entitled to an opportunity to earn a fair return on their
invested dollars. But the dollars that they did not invest are
not entitled to a return on,⁹⁶ [sic] Otherwise, it becomes an
add to the equity owners.

10 In short, Staff’s method was based on the prudent investment/original cost
11 approach, which cannot be used in Arizona, as the Court told the Commission.⁹⁷ In other
12 words, Staff’s recommendation “would fully compensate the Company’s investors for
13 their investment”⁹⁸ as long as the investment does not exceed the original cost of the
14 utility’s plant. This method plainly violates Arizona law.

15 Nevertheless, the Commission expressly approved Staff’s method, describing this
16 method as “adjust[ing] the cost of capital to reflect the cost of the portion of the capital
17 structure that is funded by neither debt nor equity, but exists due to inflation.”⁹⁹ On its
18 face, this statement is absurd, given that Staff’s approach ignored approximately

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20 ⁹⁵ *Id.* at 5.

21 ⁹⁶ Tr. at 348-49. Staff’s other witness likewise argued that assigning a “zero cost” to the Fair
22 Value Increment is appropriate because “[t]he difference between the FVRB and OCRB has not
been financed by any identifiable debt or equity capital on the utility’s books. Ex. S-R4 at 18.

23 ⁹⁷ See *Chaparral City Water* at 13, ¶ 16. (“[T]he Commission appears to be advocating the
24 setting of rates based on the investment made in the plant. However, rates cannot be based on
investment, but must be based on the fair value of the utility’s property.”).

25 ⁹⁸ Ex. S-R5 at 9.

26 ⁹⁹ Decision at 34.

1 \$3.2 million of debt and equity on the Company's books by reducing the amount of debt
2 from \$8,363,309 to \$7,016,676 and reducing the amount of equity from \$11,901,727 to
3 \$10,014,090.¹⁰⁰ Nevertheless, the Commission determined that this unlawful method
4 "would result in a fair rate of return on FVRB."¹⁰¹

5 **B. RUCO's "Inflation" Adjustment Violates the Fair Value Standard**

6 The Commission also approved of the method recommended by RUCO, under
7 which the weighted cost of capital is reduced by an inflation component that was
8 estimated to be 2.0 percent.¹⁰² RUCO's witness, Dr. Johnson, testified that the prudent
9 investment/original cost method is the only method that produces an appropriate end
10 result, and that if the current value of the utility's property is considered in setting rates,
11 the rate of return must be lowered to offset the effect of deviating from the prudent
12 investment/original cost standard. This result-driven approach also violates Arizona law.

13 Dr. Johnson argued that "[t]he fundamental premise of the return on rate base
14 approach to ratemaking is to allow utilities with an opportunity to recover their actual
15 costs, including their actual cost of capital, consistent with what occurs in competitive
16 industries."¹⁰³ But under the fair value standard, which is intended to mimic the
17 operation of the competitive market, the rate of return is applied to the fair value of the
18 utility's property, not to its OCRB or to the investment recorded on its books.¹⁰⁴ Various
19 court decisions, including *City of Alton* and *Duke Power*, discussed above, have approved
20 the application of the cost of capital to a FVRB.

21 ¹⁰⁰ Compare Decision No. 68176 at 16 (showing the capital structure approved by the
22 Commission) with Ex. S-R5 at 5. See also Tr. at 136-37.

23 ¹⁰¹ Decision at 34.

24 ¹⁰² Id. at 34-35.

25 ¹⁰³ Ex.R-R2. at 11.

26 ¹⁰⁴ E.g., *Duquesne Light*, 488 U.S. at 308.

1 Dr. Johnson nevertheless contended that “a return that fully compensates investors
2 for the actual level of capital costs, without unduly burdening customers,” is produced
3 only “when the WACC is applied to an original cost rate base.”¹⁰⁵ Again, this is simply
4 the prudent investment approach. When the weighted cost of capital is applied to the
5 OCRB, the utility’s return is limited by its historic investment in plant. When the
6 weighted cost of capital is correctly applied to the FVRB, the utility is allowed to earn a
7 fair return on the current value of its property.¹⁰⁶ The fact that the return dollars may be
8 greater (or less) than would be produced under the prudent investment approach is
9 irrelevant: The fair value standard is intended to recognize increases (and decreases) in
10 property values, and therefore the return dollars may be higher or lower than the return
11 dollars produced using original cost.¹⁰⁷

12 Dr. Johnson finally assumed that application of the weighted cost of capital to the
13 OCRB always yields an “appropriate result,” and therefore should serve as the
14 benchmark for rate-making in Arizona:

15 The *end result* of applying the WACC (including an estimate
16 of the cost of equity) to an OCRB is to provide an
17 opportunity to earn a just and reasonable return. The
18 *reasonableness of this end result* has been confirmed over
19 multiple decades by thousands of carefully reasoned
20 decisions by both regulators and appellate courts throughout
the United States. ... [A]pplying the WACC to a
consistently higher rate base valuation (fair value) will
necessary achieve an unjust and *unreasonable result* – one
that overcompensates stockholders, and unnecessarily
burdens customers.¹⁰⁸

21 ¹⁰⁵ Ex. R-R2 at 3 (emphasis added).

22 ¹⁰⁶ See, e.g., *Duke Power*, 206 S.E.2d at 281; *City of Alton*, 165 N.E.2d at 519.

23 ¹⁰⁷ Ex A-R7 at 13-16. See also *McCardle*, 272 U.S. at 410-11; *Bluefield Waterworks*, 262 U.S.
24 at 690.

25 ¹⁰⁸ Ex. R-R2 at 5-6 (emphasis added). See also E.g., Ex. R-R2 at 8 (“First and foremost, if the
26 *end result* of multiplying WACC times OCRB is just and reasonable, then the *end result* of
multiplying WACC times FVRB will be excessive”) (emphasis added).

1 This, of course, is the *Hope Natural Gas* “end result” test, which, as discussed above, has
2 been squarely rejected by the Arizona courts.¹⁰⁹ At bottom, RUCO claimed that since
3 other jurisdictions use original cost, the rate of return must be manipulated to ensure that
4 using the fair value of Chaparral City’s plant as the rate base will produce an equivalent
5 result.¹¹⁰

6 Despite the obvious conflict between RUCO’s position and Arizona law, the
7 Commission approved RUCO’s approach, claiming that “RUCO’s method analyze[ed]
8 the inflation contained in the estimates of the cost of equity and adjust[ed] the cost of
9 capital to eliminate the inflation.”¹¹¹ Actually, all Dr. Johnson did was estimate the
10 general inflation in economy, based on comparing yields of certain Treasury securities,¹¹²
11 and assume that the same inflation affects both the FVRB (which is the average of
12 reconstruction cost and original cost) and the cost of capital in the same way.¹¹³ He
13 provided no estimate of the amount of inflation in Chaparral City’s FVRB, and ignored
14

15 ¹⁰⁹ *Simms*, 80 Ariz. at 150-51, 294 P.2d at 381-82. See also Ex. A-R7 at 24-25.

16 ¹¹⁰ E.g., Ex. R-R2 at 9 (“Any level of capital costs can be recovered using a lower percentage
17 figure if the percentage figure is applied to a rate base valuation that is growing over time as a
18 result of increases in reproduction costs.”). It should be noted that while “original cost” rate bases
19 are used in other jurisdictions, the methodologies used to determine a utility’s rate base vary
20 widely from jurisdiction to jurisdiction, and include, for example, projected or forecasted test
21 years. Ex. A-R2 at 12-13. The use of projected operating expenses and rate base elements
allows utilities a “hedge” against the inflationary impacts on both operating expenses and rate
base and provides a better opportunity for utilities to actually earn their authorized rate of return.
In this case, Chaparral City’s fair value rate base is only 19 percent greater than its original cost
rate base, which is well within the range of valuation differences resulting from different test
year methodologies employed in “original cost” jurisdictions. *Id.*

22 ¹¹¹ Decision at 34.

23 ¹¹² Decision at 34-35.

24 ¹¹³ See, e.g., Ex. R-R2 at 16 (“the thrust of my [direct] testimony was clearly focused on
25 avoiding overcompensation for *general inflation* – inflation that is recognized by equity
26 investors generally, because such compensation is already compensated for within the cost of
equity capital”) (emphasis added); Tr. 12-13.

1 the fact that half of the FVRB consists of plant valued at original cost, which by
2 definition has no inflation component.¹¹⁴

3 The Commission used RUCO's unlawful approach. But rather than reducing the
4 weighted cost of capital from 7.6 percent to 5.6 percent, as proposed by RUCO, the
5 Commission reduced the Company's cost of capital from 9.3 percent to 7.3 percent, and
6 recalculated the weighted cost of capital to arrive at a new cost of capital/rate of return of
7 only 6.40 percent.¹¹⁵ Not surprisingly, the end result (in dollars) is remarkably similar to
8 the result produced by multiplying the 7.6 percent weighted cost of capital determined by
9 Decision No. 68176 by Chaparral City's OCRB.¹¹⁶

10 **V. SPECIFIC GROUNDS FOR REHEARING**

11 The Commission justified its after-the-fact reduction in Chaparral City's cost of
12 equity, which was set at 9.3 percent in Decision No. 68176 and affirmed by the Court on
13 appeal, on several grounds, asserting, in summary, that (1) as long as the rate of return is
14 applied to a FVRB, the prudent investment method can be used to set rates; (2) the
15 weighted cost of capital cannot be applied to an FVRB; and (3) application of the cost of
16 capital to a FVRB produces an excessive return because it "over compensates" for
17 inflation. As explained below, each of these justifications is erroneous.

18 **A. The Commission Unlawfully Manipulated The Rate of Return to** 19 **Produce an End Result That Is Equivalent to Using Original Cost**

20 The Commission was ordered by the Court to set rates that are based on the fair
21 value of Chaparral City's utility plant and property. As explained, under the fair value

22 ¹¹⁴ Ex. A-R4 at 44-47; Ex. A-R 7 at 37-39.

23 ¹¹⁵ Decision at 37.

24 ¹¹⁶ The total revenue requirement authorized in Decision No. 68176 was \$7,310,464, while the
25 total revenue requirement authorized on remand is \$12,143 more – an increase of 0.17 percent.
26 Decision at 41.

1 standard, utilities are “rewarded with an opportunity to earn an ‘above-cost’ return” when
2 the value of their property increases, but must also accept a lower return when the value
3 of their property declines¹¹⁷. The “return” to which utilities are entitled is the dollar
4 amount that they are allowed to earn.¹¹⁸ Thus, when the value of the assets financed by
5 the capitalization increases, the owners of the assets – the equity investors – expect a
6 higher return. Conversely, when the value of the assets decreases, the owners of the asset
7 expect a lower return. This is the essence of the competitive market, which the fair value
8 standard is intended to mimic.

9 The Commission ignored this basic rule and, in the process, misstated the holdings
10 of two important Arizona decisions, *Simms* and *Arizona Water*. According to the
11 Commission, those decisions stand for the principle that while “prudent investment
12 theory cannot be used in determining the fair value rate base,” the prudent investment
13 theory can be used in determining the appropriate rate of return.¹¹⁹ Consequently, in the
14 Decision, the rate of return was adjusted downward to produce operating income that is
15 virtually identical to the result produced by using original cost to set rates. On two
16 occasions, Arizona courts have suggested that such rate of return manipulation would be
17 illegal. For example, the Court of Appeals stated that the use of a “fluctuating” rate of
18 return in a fair value setting is unlawful:

19 ¹¹⁷ *Duquesne Light*, 488 U.S. at 308-09.

20 ¹¹⁸ “For regulatory purposes, the rate of return is the amount of money earned by a public utility,
21 over and above operating costs, expressed as a percentage of the rate base.” Charles F. Phillips,
22 Jr., *The Regulation of Public Utilities – Theory and Practice* 375-76 (Public Utility Reports, Inc.
1993).

23 ¹¹⁹ Decision at 22-23. This discussion is further muddled by its erroneous description of the
24 Company’s position on page 22, which states that the Company argues that the Commission
25 cannot use the weighted cost of capital to set rates. In fact, the Company contends that the
26 weighted cost of capital should be used to set rates. It has objected to the attempts by Staff and
RUCO to manipulate the cost of capital to produce an end result that is equivalent to setting rates
based on original cost. The Commission adopted this “end result” approach.

1 Under our constitution, a utility is entitled to a fair rate of
2 return on the fair value of its properties, "no more and no
3 less." [Citation omitted.] Dr. Langum [the Staff cost of
4 capital witness] violated this principle by pegging his opinion
5 as to rate of return to the finding of fair value. This results in
6 a fluctuating rate of return. Thus, *under Dr. Langum's*
7 *theory, it makes no difference whether the Commission used*
8 *original cost or reproduction cost as the base, the amount of*
9 *dollars in the Company's coffers is basically the same.*¹²⁰

10 In sum, the fair value standard requires the Commission to set rates that are based
11 on the current value of the utility's property, not its original cost. As a matter of law, the
12 Commission cannot use fair value as the rate base, and then manipulate the rate of return
13 to produce an end result that is equivalent to using original cost to set rates. It is
14 apparent, however, that the Commission did so in this case. Indeed, RUCO's position –
15 which the Commission adopted – was predicated on manipulating the cost of capital to
16 produce an appropriate "end result." As explained above, this violates Arizona law:

17 **B. The 7.6 Percent Rate of Return Determined in Decision No. 68176 Was**
18 **Not Based On the Company's Original Cost Rate Base and Should Be**
19 **Applied to the Fair Value Rate Base**

20 The Commission erroneously stated that the 7.6 percentage rate of return used to
21 set rates in Decision No. 68176 is tied to the Company's OCRB and therefore cannot be
22 applied to a FVRB.¹²¹ This discussion and finding conflict with Decision No. 68176 and
23 with prior Commission practice and policy. The 7.6 percent cost of capital was solely a
24 function of the ratio of debt and equity in Chaparral City's capital structure, and did not
25 depend on either the amount of invested capital or the amount of rate base that was used
26 to set rates. In addition, the 9.3 percent cost of equity – which was affirmed by the Court
of Appeals – was based on two market-based finance models that are independent of the

23 ¹²⁰ *Ariz. Corp. Comm'n v. Citizens Utilities Co.*, 120 Ariz. 184, 190 n.5, 584 P.2d 1175, 1181 n.5
24 (App. 1978) (emphasis added) (quoting *Ariz. Water*, 85 Ariz. at 203, 335 P.2d at 415). See also
Simms, 80 Ariz. at 155, 294 P.2d at 385.

25 ¹²¹ *E.g.*, Decision at 26-27, 41 ("The WACC of 7.6 percent determined in Decision No. 68176
26 was based on OCRB.").

1 rate base to which they are applied. Simple logic indicates that it is appropriate to apply
2 a market-based cost of equity to a market-based rate base.

3 When the weighted cost of capital is applied to the rate base, it is implicitly
4 assumed that the utility's invested capital is financing that particular rate base, just as in
5 the real world, the investment in an asset (e.g., a parcel of land or common stock) is
6 financing that asset regardless of the asset's current value. The asset's value is based on
7 various economic factors and not the amount originally paid for it. Under the fair value
8 standard, a utility is entitled to a return on the fair value of its assets, not a return on its
9 original investment.¹²² The cost of capital methodology can be used to derive that return,
10 as courts in other jurisdictions have squarely held.¹²³ As explained above, the
11 Company's methodology is consistent with these decisions, while the Decision ignores
12 them.

13 **1. The Weighted Cost of Capital Methodology Is Not Linked to**
14 **Chaparral City's Original Cost Rate Base**

15 In this case, the weighted cost of capital calculation was based on Chaparral City's
16 actual, adjusted capital structure as of December 31, 2003, and was determined to be as
17 follows:

	<u>Amount</u>	<u>Cost</u>	<u>Weighted Cost</u>	<u>Dollar Return</u>
18 Long-Term Debt	\$8,363,309	5.1 %	2.1 %	\$426,529
19 Common Equity	<u>\$11,901,727</u>	9.3 %	<u>5.5 %</u>	<u>\$1,106,860</u>
20 Total Capital	\$20,265,036	--	7.6 %	\$1,533,390

21
22
23
24 ¹²² See, e.g., *Duquesne Light*, 488 U.S. at 308-09.

25 ¹²³ E.g., *Union Elec. Co.*, 396 N.E.2d at 516; *Duke Power*, 206 S.E.2d at 281; *City of Alton*, 165
26 N.E.2d at 519-20.

1 These figures are taken from Decision No. 68176, at pages 16 and 26, and are not in
2 dispute.¹²⁴ By contrast, the original cost rate base approved by the Commission was
3 \$17,030,765, while the fair value rate base approved by the Commission was
4 \$20,340,298.¹²⁵ Thus, the capital structure adopted in Decision No. 68176 does not
5 match either the original cost rate base or the fair value rate base. Instead, total capital is
6 greater than original cost by about \$3.2 million, and less than fair value by about
7 \$75,000.

8 However, in Decision No. 68176, the Commission did not authorize rates that
9 would produce Chaparral City's cost of capital or allow the utility's investors an
10 opportunity to actually earn 9.3 percent on their equity investment. The nominal increase
11 in operating income proposed in the Decision – \$7,441 – likewise fails to produce
12 Chaparral City's cost of capital, as the following table shows:

	<u>Operating Income</u>	<u>Interest Expense</u>	<u>Net Earnings</u>	<u>Return on Equity</u>
Decision 68176	\$1,294,338	\$426,529	\$867,809	7.29 %
Decision	\$1,301,779	\$426,529	\$875,250	7.35 %
Staff (Alter. 1)	\$1,289,575	\$426,529	\$863,046	7.25 %

17
18 The return on Chaparral City's equity produced by Decision No. 68176 and the return on
19 equity that would be produced by the new Decision are not only well below the 9.3
20 percent return on equity authorized in Decision No. 68176, but are virtually identical,
21
22

23 ¹²⁴ The column entitled "Dollar Amount" was calculated by multiplying the components of the
24 capital structure by their authorized cost. Due to rounding, the total dollar amount, \$1,533,390,
25 actually produces a return of 7.567 percent, rather than 7.6 percent. The total annual cost of
26 capital expressed in dollars is actually \$1,540,143 (\$20,265,036 x 0.076).

¹²⁵ Decision No. 68176 at 9.

1 highlighting the result-driven nature of the Decision.¹²⁶

2 The foregoing table also highlights the disconnection between a WACC-derived
3 rate of return and original cost. The Commission normally determines the rate of return
4 (in dollars) by multiplying the weighted cost of capital by the utility's rate base. The
5 amounts of debt and equity are irrelevant to this calculation. Instead, the key inputs are
6 the percentages of debt and equity and their respective costs. This is clearly shown in
7 Decision No. 68176, where Chaparral City's 7.6 percent cost of capital was computed.¹²⁷
8 In other words, the Commission assumes that the utility's rate base is financed by the
9 same percentages of debt and equity that comprise the utility's capital structure, without
10 regard to the actual amounts of debt and equity or the size of the rate base. If Chaparral
11 City's total capital was only \$16,000,000, but the percentages of debt and equity in its
12 capital structure were the same, the weighted cost of capital would still be 7.6 percent.
13 And if Chaparral City's total capital was instead \$26,000,000, but the percentages of debt
14 and equity in its capital structure were the same, the weighted cost of capital would again
15 be 7.6 percent. Because the weighted cost of capital depends on the percentages of debt
16 and equity rather than the amount invested, a WACC-derived return can be used with any
17 rate base, not just an OCRB.

18 **2. The Cost of Equity Is Derived From Market-Based Models**
19 **That Are Unrelated to Original Cost**

20 The weighted cost of capital is comprised of the weighted cost of debt (which is
21 fixed and does not change) and the weighted cost of equity. The cost of equity is

22
23 ¹²⁶ For comparison purposes, Staff's preferred alternative, which is discussed and approved in
24 the Decision, is also shown. The range of equity returns is only 10 basis points, i.e., they are for
25 all practical purposes identical. As stated, Staff has admitted that its preferred alternative
26 produces the same result as the method used in Decision No. 68176, which was found unlawful
by the Court of Appeals. The difference is solely due to rounding. Ex. A-R14; A-R8 at 5-7.

¹²⁷ Decision No. 68176 at 26.

1 unrelated to the rate base that is used to set rates. The two finance models that were used
2 by the Commission to estimate the cost of equity in this case (and in other cases
3 involving Arizona water utilities), the Discounted Cash Flow ("DCF") model and the
4 Capital Asset Pricing Model ("CAPM"), rely on current stock prices and other current
5 market data for a proxy group of water utilities, the stock of which is traded on major
6 stock exchanges.¹²⁸ Neither model considers the rate bases of the utilities or Chaparral
7 City's rate base, or uses "book" or accounting equity.¹²⁹

8 Notably, other jurisdictions sometimes use different methods of estimating the
9 cost of equity, including methods that are accounting-based rather than market-based,
10 such as the Comparable Earnings method. The Comparable Earnings method estimates
11 the cost of equity by using the return earned on book equity investment by firms of
12 comparable risk.¹³⁰ In discussing the Comparable Earnings method, Dr. Morin explains:

13 The Comparable Earnings approach is far more meaningful in
14 the regulatory arena than in the sphere of competitive firms.
15 Unlike industrial companies, the earnings requirement of
16 utilities is determined by applying a percentage rate of return
17 to the book value of a utility's investment, and not on the
18 market value of that investment. Therefore, it stands to
19 reason that a different percentage rate of return than the
20 market cost of capital be applied when the investment base is
21 stated in book value terms rather than market value terms. In
22 a competitive market, investment decisions are taken on the
23 basis of market prices, market values, and market cost of
24 capital. *If regulation's role was to duplicate the competitive*
25 *result perfectly, then the market cost of capital would be*
26 *applied to the current market value of rate base assets*
employed by utilities to provide service. But because the
investment base for ratemaking purposes is expressed in book

128 Ex. A-R7 at 10-12; Ex. A-R4 at 16-18, 22-26.

129 The Commission's Staff admitted, in response to a Company data request, that its cost of capital analysis did not include any information related to the type of rate base to which the cost of capital would be applied. Ex. A-5 at 9 & Ex. 1 (Staff response to data request 2-5).

130 Roger A. Morin, *New Regulatory Finance* 381 (Public Utility Reports, Inc. 2006).

1 value terms, a rate of return on book value, as is the case with
2 Comparable Earnings, is highly meaningful.¹³¹

3 In his text, Dr. Morin generally assumes that utility regulators employ a prudent
4 investment/original cost approach, under which utility rates are established based on the
5 book value of the utility's investment in plant as opposed to using fair value.¹³² Despite
6 Arizona's rejection of the prudent investment approach, Dr. Morin's discussion of the
7 Comparable Earnings approach is instructive because, as the Supreme Court explained in
8 *Duquesne Light*, the fair value method is intended to mimic the operation of the
9 competitive market.

10 The Commission, however, does not use Comparable Earnings or other cost of
11 equity estimation methods that rely on accounting-based equity returns.¹³³ For example,
12 in a contemporaneous decision setting rates for another Arizona water utility, the
13 Commission stated:

14 In estimating its cost of equity, Arizona Water relied on a risk
15 premium analysis methodology used by the [California] PUC
16 staff, which uses comparisons to actual or authorized returns
17 on equity. This sort of "comparable earnings" analysis has
18 long been discredited for several reasons, Market-based
19 methods like the DCF model and the CAPM provide more
20 reliable estimates of equity cost, because it is capital markets,
21 not regulatory commissions that determine the cost of equity.
22 Use of the risk premium analysis urged by the Company
23 would circumvent the market forces that regulation attempts,
24 as much as possible, to replicate. ... The risk premium
25 analysis methodology erroneously assumes that accounting-
26 based "actual" ROEs are equal to the cost of equity.¹³⁴

22 ¹³¹ *Id.* at 394-95 (emphasis added).

23 ¹³² See Ex. A-R5 at 9-10 (discussing Dr. Morin's "Invested Capital Approach" to computing a
24 utility's operating income based on its book investment).

25 ¹³³ Ex. A-R7 at 11-12.

26 ¹³⁴ *Arizona Water Co.*, Decision No. 68302 (Nov. 14, 2005), 37-38.

1 The Commission's rejection of cost of equity estimation techniques that rely on returns
2 earned on utilities' book or accounting equity is consistent with fair value standard,
3 which considers market values in setting rates rather historic, book investment in plant.

4 In short, as a matter of common sense, the use of market-based models to estimate
5 the cost of equity is appropriate when the cost of equity is applied to a market-based rate
6 base. Yet in the Decision, the Commission has taken the opposite position – that market-
7 based equity cost estimates can only be used in connection with an accounting-based rate
8 base. In other words, in Arizona, apples should be compared with oranges, not with
9 other apples. This makes no sense. The DCF and CAPM models rely solely on stock
10 prices and market-based data, and do not consider the utilities' "book" investment or the
11 historic cost of building plant. Consequently, a cost of equity that is estimated with those
12 models can certainly be applied to a fair value rate base.

13 C. **Inflation Is Not "Over Counted" By Applying the Rate of Return to the**
14 **Fair Value Rate Base**

15 The principal justification given for reducing Chaparral City's return on equity
16 from 9.3 percent to 7.3 percent is that the application of the cost of capital to the FVRB
17 would "over compensate" Chaparral City for inflation. As explained below, the evidence
18 in the record does not support reducing the Company's cost of equity, and even if such
19 evidence existed, it would be unlawful to do so without also considering the adverse
20 impacts of inflation on the Company's overall cost of service, including its operating
21 expenses.

22 In reality, inflation adversely impacts utilities to a far greater extent than other
23 businesses because they cannot adjust their rates in response to price increases, and must
24 wait until new rates are approved following a rate case. For this reason, inflation is
25 continually eroding the Company's earnings. To counteract the erosion of earnings,
26 some jurisdictions have authorized attrition allowances and adjustments to provide the

1 utility with a reasonable chance of actually earning its authorized return on common
2 equity.¹³⁵ Here, in contrast, the Commission reduced the Company's 9.3 percent return
3 on equity (which is already very low in comparison to other jurisdictions¹³⁶) by 200 basis
4 points to only 7.3 percent.

5 **1. The "Inflation" Adjustment Is Unsupported by Credible**
6 **Evidence**

7 The Commission concluded that inflation is being "over-counted" because the cost
8 of equity, estimated by means of the DCF and CAPM models, and the FVRB both
9 include an "inflation component."¹³⁷ This "inflation component" is not clearly identified
10 or described, but is instead assumed to be 2 percent of the cost of equity, based on the
11 yields of certain Treasury securities.¹³⁸ The Commission then assumed that Chaparral
12 City's FVRB is growing larger each year by an amount equivalent to 2 percent,
13 effectively causing inflation to be over-counted – once in the cost of equity and once in
14 the FVRB. This speculation is erroneous for several reasons.

15 First, the Company's fair value rate base is not simply the "inflated" cost of its
16 plant. Rather, it is based on the average of its original cost and its reconstruction cost
17 less depreciation ("RCND") rate base. By definition, the original or book cost of the
18 Company's plant contains no inflationary component.¹³⁹ Yet, it is half of the Company's
19 fair value rate base! If the rate of inflation is 2 percent, as assumed in the Decision, and
20

21 ¹³⁵ Phillips, *supra*, n.119 at 407-08.

22 ¹³⁶ Ex. A-R2 at 14. In a survey of equity returns conducted by the National Association of Water
23 Companies, the average equity return authorized between 2002 and mid-2006 was 9.9 percent.

24 ¹³⁷ Decision at 33.

25 ¹³⁸ *Id.* at 34-36.

26 ¹³⁹ See Decision No. 69176 at 32, 37.

1 no more than 50 percent of the fair value rate base is actually affected by inflation, the
2 inflation adjustment is overstated by 50 percent, at best.¹⁴⁰

3 Second, a substantial portion of the Company's RCND rate base is not affected by
4 inflation. In determining its RCND rate base, the Company did not trend or otherwise
5 determine a current value for its real property, franchises, organizational costs and other
6 intangibles, and these rate base components therefore contain no "inflation."¹⁴¹
7 Moreover, a significant portion of the Company's fair value rate base – approximately
8 \$3 million – consisted of plant constructed during the test year, and was unaffected by
9 inflation.¹⁴²

10 Third, the Company presented testimony from Harold Walker, who is an expert on
11 utility valuation techniques, and has personally conducted numerous valuation, cost and
12 depreciation studies for utilities.¹⁴³ Mr. Walker reviewed the reconstruction cost new
13 ("RCN") study prepared by the Company and accepted by the Commission in Decision
14 No. 68176.¹⁴⁴ He determined that this study likely understates the Company's total RCN
15 value and that the method used to determine fair value in this case was a very
16 conservative valuation approach.¹⁴⁵

17 Fourth, and contrary to the discussion in the Decision, the methodology used to
18 derive the RCND rate base was not based on inflation. The plant was valued by using
19

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21 ¹⁴⁰ Ex. A-R7 at 37-38; Ex. A-R4 at 44.

22 ¹⁴¹ Ex. A-4 at 8.

23 ¹⁴² Decision No. 68176 at 3-7 (discussing plant constructed during and after the test year).

24 ¹⁴³ Ex. A-R2 at 1-2, App. A.

25 ¹⁴⁴ Decision No. 68176 at 9.

26 ¹⁴⁵ Ex. A-R2 at 3-7.

1 Handy-Whitman account-specific indexes for water utilities in the Plateau Region.¹⁴⁶
2 The Handy-Whitman indexes do not measure inflation, nor are they based on general
3 inflation in the economy, but are affected by many variables, as the Company's witnesses
4 explained.¹⁴⁷ For example, the Handy-Whitman average index for Total Gas Plant
5 declined by 4.4 percent during 2006, while other general measures of inflation, such as
6 the Consumer Price Index, were increasing.¹⁴⁸ The reality is that current reproduction
7 cost of Chaparral City's system is affected by a number of different factors, not simply
8 inflation.¹⁴⁹

9 Finally, the Decision erroneously assumes that Chaparral City has consistently
10 earned its authorized return on common equity, when there is no evidence supporting that
11 assumption.¹⁵⁰ For example, during calendar year 2006, which was the first full year
12 after the rate increases approved in Decision No. 68176 became effective, the Company's
13 return on equity had already eroded to the point that the Company filed a new application
14 for rate increases.¹⁵¹ If Chaparral City has been unable to consistently earn its authorized
15 return on equity, there is no basis on which to assume that inflation would be "over
16 counted" by applying the cost of equity to the fair value rate base.

17
18
19 _____
20 ¹⁴⁶ Ex. A-R2 at 3-4; Ex. A-4 at 7-8.

21 ¹⁴⁷ Tr. at 43-45, 50-51.

22 ¹⁴⁸ A-R7 at 17, 30.

23 ¹⁴⁹ E.g., Ex. A-R1 at 4-5; Ex. A-R4 at 45.

24 ¹⁵⁰ Ex. A-R4 at 46.

25 ¹⁵¹ *Chaparral City Water Co.*, Docket No. W-02113A-07-0551, Schedules E-2 and E-9 (audited
26 financial statement). During calendar year 2006, the Company's net income was \$505,119,
which is about \$360,000 less than the net income produced by Decision No. 68176.

1 **2. The Decision Engaged in Piecemeal Ratemaking in Violation of**
2 **Arizona Law and Established Commission Policy.**

3 The Commission also ignored the pernicious effect of inflation on the Company's
4 ability to actually earn its authorized rate of return, including the impacts of inflation on
5 the Company's overall cost of providing service. Because the Commission uses historic
6 test years with limited adjustments for post-test year changes, and does not allow water
7 utilities to implement surcharges and adjustment mechanisms to recover increases in key
8 costs such as purchased power and water,¹⁵² most water utilities are unable to actually
9 recover their authorized equity return.¹⁵³ Indeed, during calendar year 2006 (i.e., the first
10 full year after the rate increases authorized in Decision No. 69176 became effective)
11 Chaparral City's net income was only \$505,119 – some \$360,000 less than the net
12 income anticipated by Decision No. 68176 and \$600,000 less than the net income
13 required for Chaparral City to actual earn a return on equity of 9.3 percent.¹⁵⁴

14 There is undisputed evidence in the record that the Company's operating expenses
15 are being impacted by inflation to a much greater extent than inflation impacts the
16 Company's rate base or its return on equity.¹⁵⁵ Assuming general inflation of 2 percent
17 annually, as the Commission has done, the Company's operating expenses will increase
18 2.4 times faster than the Company's operating income, as shown by the schedule attached
19 at Tab. A. This schedule actually understates the impact of inflation because while
20

21 ¹⁵² Decision No. 68176 at 31-34. Approximately 90 percent of the Company water is purchased
22 from the Central Arizona Project, the cost of which has consistently increased. *Id.* at 31-32. The
23 Company is provided power by both APS and SRP, whose rates have been steadily increasing.
Id. at 32.

24 ¹⁵³ Ex. A-8 at 7.

25 ¹⁵⁴ See tables at pages 34-35, above.

26 ¹⁵⁵ Ex. A-R4 at 42-43.

1 increases in operating expenses must be immediately paid by the Company, any increase
2 in its fair value rate base will only be recognized in rates after another rate case has been
3 completed and new rates established. Thus, after three years, the Company's operating
4 expenses will have increased by nearly \$230,000 if the general rate of inflation is
5 assumed to be 2 percent, but any increase in rate base will have no impact on the
6 Company's earnings until the next rate case has been concluded.¹⁵⁶

7 In short, the Decision is a prime example of piecemeal regulation. RUCO
8 previously argued in this case that "[b]iased rates result when incremental changes in any
9 one particular cost are adjusted without consideration of changes in all other elements of
10 the Company's cost of service."¹⁵⁷ The Commission agreed with RUCO, and rejected
11 Chaparral City's request to implement adjustment mechanisms to recover increases in
12 purchased power and water expenses in Decision No. 68176 based on the "danger of
13 piecemeal regulation."¹⁵⁸ Yet, by focusing solely on the cost of equity, and ignoring the
14 impact of inflation on the other elements of the Company's cost of service and the
15 resulting rate of return, the Commission has now engaged in piecemeal regulation in
16 violation of Arizona law. *See Residential Utility Consumer Office*, 199 Ariz. at 593, 20
17 P.3d at 1174; *Scates*, 118 Ariz. at 535, 578 P.2d at 161.

18 For all of these reasons, the Commission's adjustment to the Company's cost of
19 equity is excessive and unlawful. The Commission has ignored the evidence submitted
20

21 ¹⁵⁶ At present, for example, the Company's current rates are based on utility plant and operating
22 expenses as of December 31, 2003. The Company's new rate case, filed in September 2007, was
23 stayed for six months pending the completion of the remand proceeding. *See Chaparral City*
24 *Water Co.*, Docket No. W-02113A-07-0551, Second Amended Procedural Order (July. 24,
2008). In the meantime, the Company's expenses have been increasing, further eroding the
Company's earnings.

25 ¹⁵⁷ RUCO Reply Br. at 7 (July 20, 2005).

26 ¹⁵⁸ Decision No. 68176 at 33.

1 by the Company's witnesses, including evidence that explains how the Company's fair
2 value rate base was derived, while speculating about the impact inflation might have on
3 the Company's rate base. At the same time, the Commission has ignored the impact of
4 inflation on the Company's cost of service and ability to earn its authorized rate of return,
5 and instead engages in piecemeal ratemaking by considering the cost of equity in
6 isolation. This one-sided approach was result-driven and violates Arizona law.

7 **D. The Company Should Have Been Allowed To Recover A Reasonable**
8 **Amount Of Rate Case Expense**

9 The Decision denies recovery of any rate case expense for the successful appeal
10 and resulting remand proceeding. Instead, the Decision orders the Company to seek
11 recovery of rate case expense in its pending general rate case. Decision at 43 This
12 remedy is severely flawed. The Company has already requested rate case expense in that
13 case for the expenses incurred in that proceeding. Additionally, expenses for the appeal
14 and remand proceeding were incurred before, during, and after the test year being used in
15 that rate case. This will not only cause needless confusion, but may provide additional
16 arguments against recovery.

17 The denial of rate case expense further violates fundamental notions of due
18 process. A proceeding to fix rates carries with it fundamental procedural requirements.
19 *State ex rel. Corbin v. Ariz. Corp. Comm'n*, 143 Ariz. 219, 223-24, 693 P.2d 362, 366-67
20 (App. 1984). This means that when a party meets its burden of proof on an issue, and
21 there is no rebuttal, the party should prevail on that issue. The Company evidenced the
22 amount of rate case expense it had incurred in and for this matter since Decision 68176
23 was issued. Bourassa Remand Rb. at 9; Bourassa Remand Rj at 21; TR at 66-67. *See*
24 *also* July 6, 2007 - Amended Notice of Filing Revised Schedules. This evidence further
25 showed the amount requested, \$100,000, to be far less than one-half the amount actually
26 incurred, and therefore, reasonable under the circumstances.

1 Staff and RUCO were provided the back-up documentation for all of the
2 Company's requested rate case expense. Nevertheless, neither Staff nor RUCO
3 challenged the Company's evidence in any manner. RUCO remained totally silent on the
4 issue of rate case expense, while Staff offered several legal and other conjectural reasons
5 why the Company was prohibited from recovering any rate case expense. All of Staff's
6 arguments were rejected in the Decision, which finds that rate case expense is
7 recoverable, just not in this case. Decision at 39. But the decision is still arbitrary and
8 capricious. The undisputed evidence was that the Company incurred more than twice the
9 amount requested as a result of the Commission's Constitutional violation. The
10 Company should have been awarded \$100,000 in rate case expense in the Decision.

11 **VI. CONCLUSION**

12 For these reasons, the Commission should rehear this matter and reject the result-
13 driven and unsupported findings and determination of the Decision, and adopt the
14 Company's recommendation and apply the cost of capital, 7.6 percent, to the fair value
15 rate base. The Company's recommendation is consistent with the Arizona Constitution
16 and relevant law because it uses fair value in an appropriate and meaningful way to set
17 rates. The Decision, in contrast, is contrary to fair value standard and again violates
18 Arizona law.

19 RESPECTFULLY SUBMITTED this 31st day of July, 2008.

20 FENNEMORE CRAIG

21
22 By _____

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Tab A

Chaparral City Water Company
Analysis of Inflation Impacts on RB and OE

	Per Decision 68176	Period in Years				
		1 2%	2 2%	3 2%	4 2%	5 2%
Annual Inflation						
FVRB	\$ 20,340,297					
FVRB after inflation		\$ 20,747,103	\$ 21,162,045	\$ 21,585,286	\$ 22,016,992	\$ 22,457,331
Increase In RB		\$ 406,806	\$ 821,748	\$ 1,244,989	\$ 1,676,695	\$ 2,117,034
ROR	7.60%	7.60%	7.60%	7.60%	7.60%	7.60%
Required Oper. Income due to increase in FVRB		\$ 30,917	\$ 62,453	\$ 94,619	\$ 127,429	\$ 160,895
Operating Expenses ¹	\$ 3,722,696					
Operating expenses after inflation		\$ 3,797,150	\$ 3,873,093	\$ 3,950,555	\$ 4,029,566	\$ 4,110,157
Increase in OE due to Inflation over TY operating expenses		\$ 74,454	\$ 150,397	\$ 227,859	\$ 306,870	\$ 387,461
Excess (Shortfall) of return \$'s over increase in operating expenses		\$ (43,537)	\$ (87,944)	\$ (133,240)	\$ (179,441)	\$ (226,567)

¹ Exclusive of depreciation, income taxes, and property taxes